

PONY

سلسلة كتب الاستاذ

Maths

By: Mohamed Nasreldin

Revision & Answers



4th

Primary
First Term

2022



General Exercises

General Exercises on Unit 1

First: Choose the correct answer:

- 1 is a number.
- a $(7 \times 100,000) + (2 \times 2,000)$ b 50 millions
c 456 d $30,000 + 800$
- 2 23,080,250: (in Word Form)
- a Three hundred and sixty million, eighty thousand, two hundred fifty.
b Twenty-three million, eight hundred thousand, two hundred fifty.
c Twenty-three million, eighty thousand, two hundred fifty.
d Three hundred and sixty million, eight hundred two thousand, fifty
- 3 706,200,405: (in Expanded Form)
- a $700,000,000 + 6,000,000 + 200,000 + 400 + 5$
b $700,000,000 + 6,000,000 + 200 + 40 + 5$
c $70,000,000 + 6,000,000 + 20,000 + 400 + 5$
d $700,000,000 + 6,000,000 + 200,000 + 40 + 5$
- 4 Three milliard (billion), five hundred ninety thousand, three hundred five: (in Standard Form)
- a 3,000,590,305 b 3,590,305
c 3,590,000,305 d 3,005,900,305
- 5 The **smallest even** number formed from 8 different digits is
- a 99,999,998 b 10,000,000
c 10,234,567 d 10,234,568

- 9** $258,456 \approx \dots\dots\dots$. (To the nearest **10,000**)

Second: Complete the following:

- 6 (3 thousands and 5 tens) \times 1,000 =

Revision

7 7,305,057 (in Expanded Notation) =

$$(7 \times \dots) + (3 \times \dots) + (5 \times \dots) + (5 \times \dots) + (7 \times \dots)$$

8 Nine milliard (billion), seven hundred five million, thirty thousand, six

= (in Standard Form)

9 $654,215 \approx$ (To the nearest 10,000)

10 $\approx 45,000$. (To the nearest 1,000)

(Complete with the **smallest** number possible)

Third: Complete using (< , = or >):

- | | |
|---|-------------------|
| 1 200,002,780. | 200,020,078. |
| 2 $(5 \times 100,000,000) + (5 \times 1)$. | 550,000,000. |
| 3 620,000,602. | 62 millions, 602. |
| 4 Three hundred million, three hundred. | 300,300,000. |
| 5 The value of the digit 8 in the
Hundred-thousands place. | 800,000. |

Fourth: Arrange the following numbers in a **descending order**
(Write the numbers using the **Standard Form**):

The Order	Number	Standard Form
a	30,000,450
b	$(3 \times 1,000,000) + (4 \times 100) + (5 \times 1)$
c	Three hundred million, four hundred fifty
d	$50 + 400 + 3,000,000,000$
e	30 million, 450 thousand

Fifth: Write each of the following numerical forms in **Standard Form**, then estimate the number by the **Front-end Estimation Strategy**, then round the number to the nearest **100**:

Numerical Form	Standard Form	Front-end Estimation Strategy	To the Nearest 100
a Five thousand, five hundred ninety nine
b 4 thousand, 985
c $90,000 + 400 + 30 + 2$
d $(8 \times 10) + (3 \times 1)$

General Exercises on Unit 2

First: Choose the correct answer:

- 1 $25 + 152 = 152 + 25$. (..... Property)
 a Neutral Element b Associative
 c Commutative d Distributive
- 2 $63 + (15 + 95) = (63 + 15) + 95$. (..... Property)
 a Neutral Element. b Associative.
 c Commutative. d Distributive
- 3 $258 + 0 = 258$. (..... Property)
 a Neutral Element b Associative
 c Commutative d Distributive
- 4 $456 + 998 = 454 + \dots$.
 a 999 b 990
 c 1,000 d 996
- 5 $369 + 254 = \dots$.
 a $369 + 200 + 50 + 4$ b $369 + 2 + 4 + 5$
 c $369 + 25 + 4$ d $369 + 2 + 54$
- 6 The equation that represents the following **Bar Model** is

750	
χ	150

- a $\chi + 120 = 750$ b $750 - \chi = 150$
 c $\chi - 150 = 750$ d $\chi = 750 + 150$

7 The Bar Model that represents the following equation " $32 - y = 15$ " is

a

32	
15	y

b

15	
32	y

c

y	
15	32

d

47	
32	y

8 $158,456 + 252,234 =$

a 300,780

b 410,690

c 300,690

d 790,410

9 If $x + 245 = 786$, then $x =$

a $245 + 786$

b $786 - 245$

c $245 + 541$

d $786 - 541$

10 If $452 - y = 152$, then $y =$

a $452 + 152$

b $152 + 200$

c $452 - 152$

d $452 - 200$

Second: Complete the following:

1 $45 + 21 =$ + 45 (..... Property)

2 $(45 + 25) + 15 +$ = + (..... + 15) + 13
(..... Property)

3 $254 +$ = 254 (..... Property)

4 $25,475 + 85,235 =$

5 $600,800 - 365,247 =$

Revision

- 6 If $x + 258 = 500$, then $x =$
- 7 If $458 + y = 600$, then $y =$
- 8 If $m - 524 = 214$, then $m =$
- 9 If $842 - z = 600$, then $z =$
- 10 If $2,456 + 3,375 =$ \approx (To the Nearest **1,000**)

Third: Solve the following problems using the strategy shown.
(Show your steps):

Problem	Mental Math Strategy	Solution
1 $64 + 49$	Compensation Strategy
2 $456 + 127$	Composing and Decomposing Strategy
3 $800 - 793$	Counting Up Strategy (From the smallest number to the largest number):

Fourth: Solve the following problem using the **Countdown Strategy** with **Decomposition of Numbers**:

$$\begin{array}{r}
 647 \\
 - 125 \\
 \hline
 \end{array}$$



Fifth: Solve the following problem using the **Count-on Strategy with Decomposition of Numbers**:

$\begin{array}{r} 842 \\ - 321 \\ \hline \end{array}$	\longleftrightarrow	

Sixth: Answer the following:

- a In one week **6,245** tourists visited the pyramids, and in the following week **5,375** tourists did.

How many total tourists visited the pyramids in the two weeks?

Bar Model:

Equation:

Solution:

.....	
.....

- b Sarah had **1,025** pounds. She bought a dress for **675** pounds.

How many pounds are left with Sarah?

Bar Model:

Equation:

Solution:

.....	
.....

- c A road with a length of **9,150 meters** was paved in three days, of which **345 meters** were paved on the first day and **290 meters** on the next day. How many meters were paved on the third day?

.....

.....

.....


General Exercises on Unit 3

First: Choose the correct answer:

- 1 The best unit for measuring the **height** of a **class** is the
 - a meter
 - b centimeter
 - c millimeter
 - d kilometer
- 2 The best unit for measuring a **dog's mass** is
 - a grams
 - b centigrams
 - c milligrams
 - d kilograms
- 3 The best unit for measuring a **car's fuel tank** is
 - a liters
 - b centiliters
 - c milliliters
 - d dekaliters
- 4 The time is now **10:25**, what time will it be in **fifty** minutes?
..... .
 - a 10: 50
 - b 10: 15
 - c 11:25
 - d 11:15
- 5 **120 hours** = **days**.
 - a 2
 - b 6
 - c 5
 - d 12
- 6 The is one of the **gradient scales** that we see in our daily lives.
 - a car
 - b mobile phone
 - c balance
 - d calculator
- 7 The **height** of Cairo Tower is **198** meters. How high is it in centimeters?
 - a 198 cm
 - b 1,980 cm
 - c 19,800 cm
 - d 198,000 cm

- a** 565 gm **b** 650,500 gm
- c** 65,000,500 gm **d** 65,500 gm

a 3:20 **b** 2:40
c 2:20 **d** 4:20

10 If a fish tank contains 20 liters and 250 milliliters of water. The **volume** of water in the tank in milliliters is 

- a** 20,250 ml **b** 2,250 ml
c 25,020 ml **d** 2,025 ml

- 1 10 meters and 25 centimeters = centimeters.
- 2 20,015 meters = kilometers and meters.
- 3 15,040 grams = kilograms and grams.
- 4 400,020 milliliters = liters and milliliters.
- 5 40 hectometers = dekameters = meters.
- 6 20,000 centigrams = decigrams = grams.
- 7 dekaliters = 500 liters = deciliters.
- 8 $6:45 + 2:28 = \text{.....} :$
- 9 $8:00 - 7:37 = \text{.....} :$
- 10 250 minutes = hours and minutes.

1 7 weeks. 45 days. **2** 3 days. 46 hours.
3 2 hours. 150 minutes. **4** 4 minutes. 240 seconds.

Revision

Fourth: Arrange the following lengths in an **ascending** order:

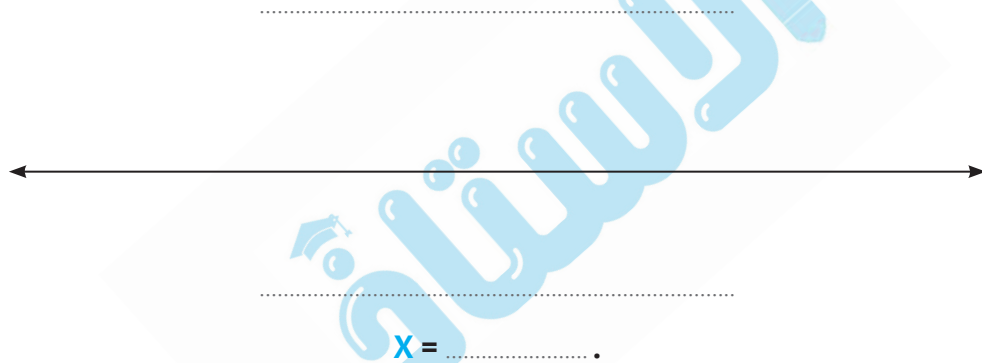
40 dekameters , 40 hectometers , 400 centimeters , 400 decimeters

The order : , , ,

Fifth: The following table shows the grades of a group of students in Mathematics:

Marks	15	16	17	18	19	20
Number of Students	3	4	6	2	4	5

Use the previous table to represent the data with a **Line Plot**:



Sixth: Salah trains in Football for two hours and **30** minutes. If Salah goes to training three days a week, how many minutes does Salah spend in training per day?
And how many minutes does Salah spend in training per week?

.....

.....

.....

General Exercises

on Unit 4

First: Choose the correct answer:

- 1 A rectangle of 8 cm length and 6 cm width, its **perimeter** is cm.
 - a $8 + 6 + 8 + 6$
 - b $8 \times 6 \times 8 \times 6$
 - c $8 \times 6 \times 2$
 - d $8 + 6 + 2$
- 2 A rectangle has a length of 9 cm and a width one third of its length, then its **area** = cm^2 .
 - a 12
 - b 27
 - c 24
 - d 36
- 3 A square has an area of 64 cm^2 , then its **perimeter** = cm.
 - a 8
 - b 16
 - c 32
 - d 64
- 4 A square has a perimeter of 28 cm, then its **area** = cm^2 .
 - a 49
 - b 14
 - c 7
 - d 21
- 5 A rectangle has a perimeter of 24 cm and a length of 9 cm, then its **area** is cm^2 .
 - a 3
 - b 31
 - c 12
 - d 27
- 6 Which of the following is a formula for the **perimeter of the rectangle**?
 - a $P = L + W + 2$
 - b $P = (L \times W) \times 2$
 - c $P = (L \times 2) + (W \times 2)$
 - d $P = (L \times W) + 2$
- 7 Which of the following is a formula for the **perimeter of the rectangle**?
 - a $P = L + W + L + W$
 - b $P = L \times 2 \times W \times 2$
 - c $P = (L + 2) \times (W + 2)$
 - d $P = (L + W) + 2$

- Second: Complete the following:**

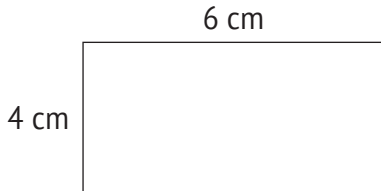
- 14 • Maths Prim. 4 – First Term

Third: Answer the following:

1 Calculate the **area** and **perimeter** of each of the following shapes:

(Show your steps)

a



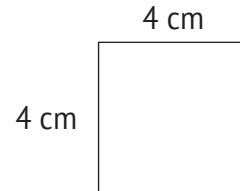
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.....

.....

.....

b



c

.....

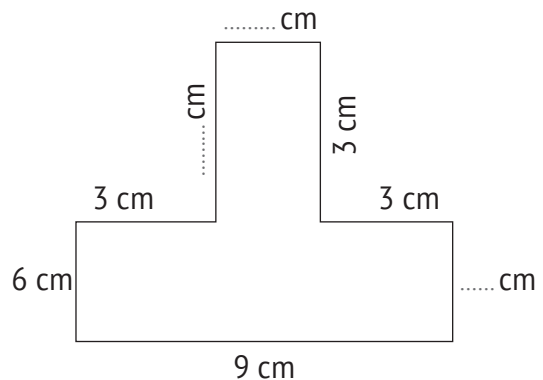
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2 The length of Fatima's rectangular garden is **three times** its width.

If (W) is the width, write an equation that can represent the perimeter of Fatima's garden?

.....

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3 Adam has a rectangular computer keyboard that is **40 cm** long and **15 cm** wide. How can Adam calculate the perimeter of the keyboard?

.....

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موقع مذكرات جاهزة للطباعة

PONY

سلسلة كتب الاستاذ

Maths

By: Mohamed Nasreldin

Final Revision
unit 5 to 7



4th

Primary
First Term

2022

General Exercises

on Unit 5

First: Choose the correct answer:

- 1 To compare between 6 and 18:
- a 18 equals six times 6 b 18 equals six times 3
c 18 equals triple 6 d 18 equals triple 3
- 2 $8 + 8 + 8 + 8 + 8 =$
- a 8×8 b $8 + 8$
c $8 + 5$ d 8×5
- 3 $6 \times 4 =$
- a $6 + 6 + 6 + 6$ b $6 \times 6 \times 6 \times 6$
c $4 + 4 + 4 + 4$ d $4 \times 4 \times 4$
- 4 The opposite **Strip Diagram** represents:

7	7	7	7	7
---	---	---	---	---

- a 35 equals seven times 7 b 35 equals five times 7
c 35 equals seven times 5 d 35 equals five times 5
- 5 The **Strip Diagram** that represents "12 equals triple 4" is
- a

4	4	4	4
---	---	---	---

 b

3	3	3	3
---	---	---	---

c

3	3	3
---	---	---

 d

4	4	4
---	---	---
- 6 The equation that represents "28 equals four times n" is
- a $28 = 4n$ b $28n = 4$
c $28 = 4 + n$ d $28 - n = 4$

7 If $8 \times 5 = a \times 8$, then $a =$

a 40

b 8

c 5

d 64

8 $200 \times \dots = 10,000$.

a 5

b 50

c 500

d 5,000

9 $8 \times 5 \times 4 = (8 \times 5) \times 4 = \dots \times 4$.

a 40

b 8

c 20

d 10

10 $8 \times 500 = 40 \times \dots$.

a 5

b 100

c 10

d 1,000

Second: Complete the following:

1 $4 + 4 + 4 + 4 + 4 + 4 = 3 \times \dots$.

2 $9 \times 3 = \dots + \dots + \dots$.

3 The equation that represents "36 equals four times n" is

4 If $5x = 35$, then $x =$

5 $20 \times 50 = 50 \times \dots$.

6 $\dots = 80 \times 500$.

7 $600 \times \dots = 30,000$.

8 $(5 \times 8) \times 6 = \dots \times \dots = \dots$.

9 $6 \times 30 = 18 \times \dots = \dots$.

10 $9 \times \dots = 36 \times 100 = \dots$.

Revision

Third: Compare between each two numbers:

- 1 48 and 6 \Rightarrow 48 6.
- 2 36 and 9 \Rightarrow 36 9.
- 3 21 and 7 \Rightarrow 21 7.
- 4 15 and 3 \Rightarrow 15 3.
- 5 45 and 5 \Rightarrow 45 5.

Fourth: Complete each of the following using the **Strip Diagrams**:

- 1 is times

7	7	7	7	7
---	---	---	---	---
- 2 is times

5	5
---	---
- 3 is times

2	2	2	2	2	2	2	2
---	---	---	---	---	---	---	---
- 4 is times

3	3	3	3
---	---	---	---
- 5 is times

9	9	9
---	---	---

Fifth: Write an equation for the following comparisons:
(Use symbols to represent the unknowns, then find their values):

- 1 The number m equals eight times the number 6.

Equation :

Solution :

- 2 The number 24 equals eight times the number n.

Equation :

Solution :

- 3 The number 21 equals a times the number 3.

Equation :

Solution :

- 4 The number x equals six times the number 7.

Equation :

Solution :

Sixth: Answer the following:

- a Mahmoud has 20 crayons, which is 5 times the number of crayons that Hazem has. How many crayons are there with Hazem?
(Write a multiplication equation representing this problem and then solve it).

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.....

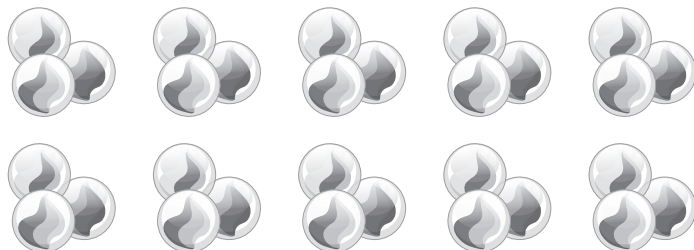
- b Nader has 12 oranges.
Write an equation using the Commutative Property of Multiplication to describe two ways in which he can arrange the oranges.

.....

.....

.....

- c Use the Associative Property in the multiplication to calculate the number of marbles in the picture:



.....

.....

.....

General Exercises on Unit 6

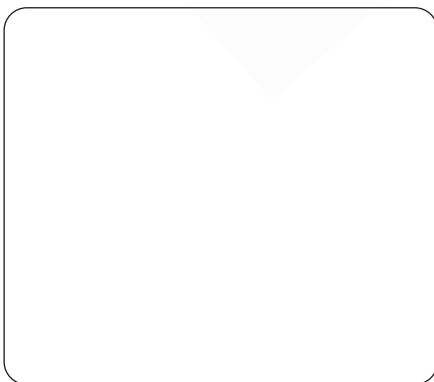
First: Choose the correct answer:

- 1 The number of **factors** of 16 are
 (a) 3 (b) 4 (c) 5 (d) 6
- 2 The number 17 is a **prime** number because
 (a) it has one factor only (b) it has two factors only
 (c) it has no factors (d) it has more than two factors
- 3 The number that has the **factors** (1 , 2 , 3 , 4 , 6 , 8 , 12 , 24) is
 (a) 8 (b) 12 (c) 24 (d) 36
- 4 The **smallest odd** prime number is
 (a) 0 (b) 1 (c) 2 (d) 3
- 5 The **greatest common factor** of 24 and 36 is
 (a) 6 (b) 12 (c) 4 (d) 3
- 6 is a **common multiple** of 8 and 6.
 (a) 12 (b) 16 (c) 48 (d) 36
- 7 If $6 \times 8 = 48$, then
 (a) 48 is a multiple of 6 and 8 (b) 48 is a factor of 6
 (c) 48 is a sum for 6 and 8 (d) 6 is a factor of 8
- 8 is an **odd** number and a **multiple** of the two numbers 5 and 7.
 (a) 70 (b) 49 (c) 35 (d) 25
- 9 is an **even** number and a **multiple** of the two numbers 5 and 3.
 (a) 15 (b) 45 (c) 60 (d) 50
- 10 is an **even** number, and (2 , 3 , 6 , 9) are of its **factors**.
 (a) 30 (b) 24 (c) 45 (d) 36

Second: Complete the following:

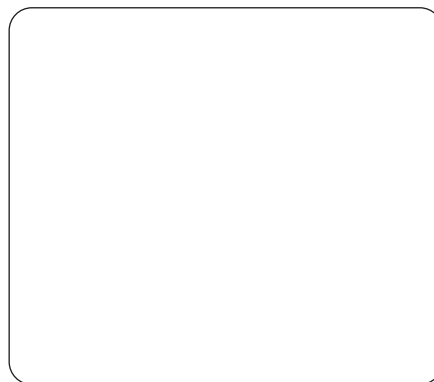
- 1 The **factors** of 14 are , ,
- 2 The **smallest odd** prime number is
- 3 The **prime numbers** between 20 and 40 are , , and
- 4 The number that has **only two factors** is called a number.
- 5 The **smallest** two-digit-prime-number is
- 6 Number (2) is a factor of a number if the **Ones** digit of this number is
- 7 Multiples of 6 up to 20 are
- 8 The **common multiples** of 4 and 6 between 20 and 50 are
- 9 The relationship between the numbers 5, 6 and 30 is that the number 30 is a for the numbers 5 and 6.
- 10 is a prime number whose the sum of its factors is 8.

Third: Find the Greatest Common Factor for 40 , 32:



The factors of number 40:

.....



The factors of number 32:

.....

The **common factors** are:

The **Greatest Common Factor** (G. C. F.) is:

Revision

Fourth: Find the **multiples** of each of the numbers **6** and **8**, up to **50**, then find the **common multiples** between them:

The **multiples** of 6 are:

The **multiples** of 8 are:

The **common multiples** of the two numbers are:

Fifth: There is an alarm that rings every **3** hours and another alarm that rings every **two** hours. If they ring together at **12:00**, when will they ring again together? (Show your steps)

.....

.....

.....

.....

.....

Sixth: Hana has **12** red balloons, **18** blue balloons, and **24** white balloons. Hana wants to form **equal groups** of balloons, so that all groups contain the same number of balloons of different colors.

How many groups can be formed?

How many balloons of each color are in each group?

.....

.....

.....

.....

.....

General Exercises

on Unit 7

First: Choose the correct answer:

1 The **Rectangle Area Model** that represents "**23 X 8**" is

- a

2	3
$8 \times 2 = 16$	$8 \times 3 = 24$

 8
- b

20	3
$80 \times 20 = 1,600$	$80 \times 3 = 240$

 80
- c

2	30
$8 \times 2 = 16$	$8 \times 30 = 240$

 8
- d

20	3
$8 \times 20 = 160$	$8 \times 3 = 24$

 80

2 $4 \times (200 + 30 + 5) = 4 \times$

- a 235 b 10
 c 523 d 940

3 $(5 \times 7) + (5 \times 30) + (40 \times 7) + (40 \times 30) =$ X

- a 57×43 b 45×37
 c 47×35 d 43×75

4 $(8 \times 6) + (8 \times 20) + (8 \times 100) =$ X

- a 8×621 b 8×18
 c 8×126 d $8 \times 62,000$

5 $62 \times 50 =$

- a $(60 \times 50) + (2 \times 50)$ b $(6 + 2) \times 50$
 c $60 + 2 + 50$ d $60 \times 2 \times 50$

6 The opposite **Rectangle Area Model** represents:

- a 52×23 b 25×23
 c 32×52 d 25×32

X	20	5
30	30×20	30×5
2	2×20	2×5

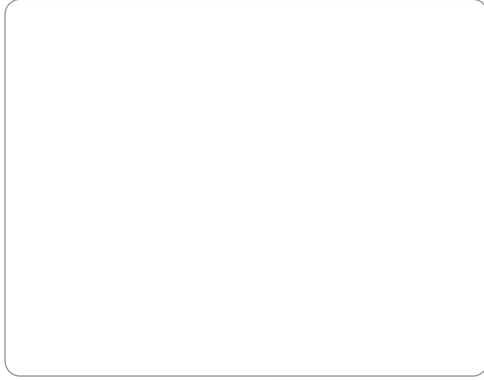
- 7** The quotient of $(157 \div 5)$ is between and
- a 0 and 100 b 100 and 200
c 200 and 300 d 300 and 400
- 8** The number of digits of the quotient of $(2,542 \div 6)$ is
- a 1 b 2
c 3 d 4
- 9** The number which if divided by 7, the quotient is 24 and the remainder 3 is
- a 168 b 171
c 72 d 165
- 10** The area of a rectangle is 104 cm^2 and its width is 8 cm, then its length is cm.
- a 13 b 44
c 832 d 26

Second: Complete the following:

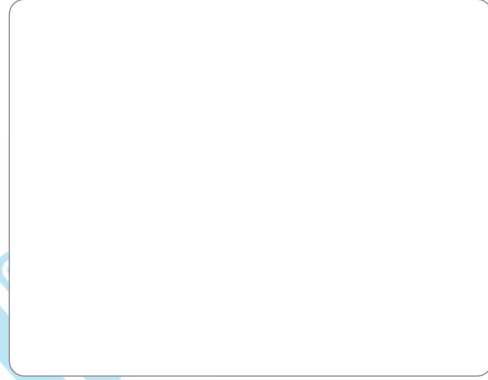
- 1 $4,257 = 4,000 + 200 + \dots + \dots$.
- 2 $80 \times 900 = \dots$.
- 3 If $8 \times 5 = 40$, then $40,000 \div 8 = \dots$.
- 4 $6 \times \dots = 30,000$.
- 5 The number which if divided by 8, the quotient will be 200 is \dots .
- 6 The estimation of 32×24 is $\dots \times \dots = \dots$.
- 7 The remainder of $(49 \div 6)$ is \dots .
- 8 $75 = (12 \times \dots) + 3$.
- 9 The quotient $(945 \div 4)$ is between \dots and \dots .
- 10 $800 \times 30 = 24 \times \dots$.

Third: Use the **Rectangle Area Model Strategy** to solve the following problems:

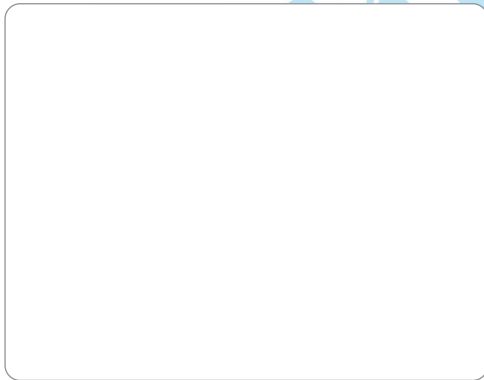
1 78×3



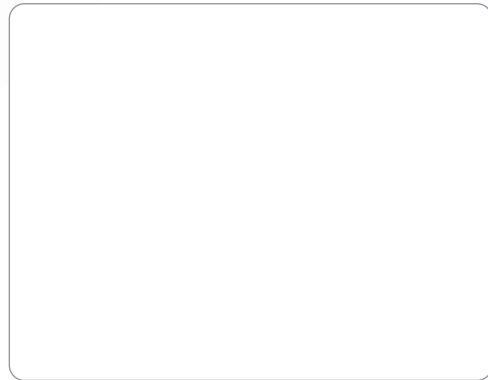
2 8×245




3 40×234



4 36×47



5 $92 \div 4$



6 $849 \div 5$



Revision

Fourth: Use the **Multiplication/Division Partial Algorithm** to solve the following problems:

1 98×6

2 145×7

3 80×315

4 78×29

5 $73 \div 2$

6 $1,125 \div 5$

Fifth: Use the **Standard Multiplication/Division Algorithm** to solve the following problems:

1 6×29

2 3×125

3 96×17

4 $84 \div 6$

5 $981 \div 9$

6 $2,436 \div 4$

Sixth: Use the **Distributive Property** to solve the following problems:

1 $7 \times 45 = 7 \times (\dots + \dots) = (\dots \times \dots) + (\dots \times \dots)$
 $= \dots + \dots = \dots$

2 $5 \times 145 = 5 \times (\dots + \dots + \dots)$
 $= (\dots \times \dots) + (\dots \times \dots) + (\dots \times \dots)$
 $= \dots + \dots + \dots = \dots$

Revision

$$\begin{aligned} \boxed{3} \quad 8 \times 2,543 &= 8 \times (\dots\dots\dots + \dots\dots\dots + \dots\dots\dots + \dots\dots\dots) \\ &= (\dots\dots \times \dots\dots) + (\dots\dots \times \dots\dots) + (\dots\dots \times \dots\dots) + (\dots\dots \times \dots\dots) \\ &= \dots\dots\dots + \dots\dots\dots + \dots\dots\dots + \dots\dots\dots = \dots\dots\dots \end{aligned}$$

Seventh: Answer the following using the **appropriate strategy**:

- a The school bus can accommodate **45** students. If the school has **5** buses, and each bus makes **two** trips in the morning, how many students can be transported by all buses in the two trips?
-
-
-
- b Ahmed bought a car for **290,000** pounds, of which he paid **80,000** pounds as a down-payment, and the rest of the car's price will be paid in **7 equal** installments. How much is one installment?
-
-
-
- c May has **31** days. How many hours are there in this month?
-
-
-
- d A charity association wants to distribute **3,168** pounds among **8** people. How much is the share of one person?
-
-
-

General Exercises

General Exercises on Unit 1

First

- | | | |
|-------|--------|-------|
| 1 (c) | 2 (c) | 3 (a) |
| 4 (a) | 5 (d) | 6 (b) |
| 7 (b) | 8 (b) | |
| 9 (b) | 10 (b) | |

Second

- 1 Hundred-millions 2 987,430
- 3 Two billion, seven million, Two hundred twenty five thousand, one hundred two.
- 4 Ten-millions. 5 Thousands.
- 6 3,050,000.
- 7 $1,000,000 - 100,000 - 1,000 - 10 - 1$.
- 8 9,705,030,006. 9 650,000. 10 44,500.

Third

- | | | |
|-----|-----|-----|
| 1 < | 2 < | 3 > |
| 4 < | 5 = | |

Fourth

The Order	Standard form
3	30,000,450
1	3,000,405
4	300,000,450
5	3,000,000,450
3	30,450,000

Fifth

- a 5,599 , 5,000 , 5,600.
- b 4,985 , 4,000 , 5,000.
- c 90,432 , 90,000 , 90,400.
- d 83 , 80 , 100

General Exercises on Unit 2

First

- | | | |
|-------|--------|-------|
| 1 (c) | 2 (b) | 3 (a) |
| 4 (c) | 5 (a) | 6 (b) |
| 7 (a) | 8 (b) | |
| 9 (b) | 10 (c) | |

Second

- 1 21 , Commutative. 2 13 , 45 , 25 , Associative.
- 3 0 , Neutral Element.
- 4 110,710. 5 235,553. 6 242.
- 7 142. 8 738. 9 242.
- 10 $5,831 \approx 6,000$.

Third

- 1 $63 + 50 = 113$
- 2 $456 + 100 + 20 + 7$
 $= 556 + 20 + 7$
 $= 576 + 7 = 583$
- 3 7

Fourth

552

Fifth

521

Sixth

- a $\chi = 6,245 + 5,375$
 $\chi = 11,620$
- b $\chi = 1,025 - 675$
 $\chi = 350$
- c $345 + 290 = 635$ m.
 $9,150 - 635 = 8,515$ m.

General Exercises on Unit 3

First

- | | | |
|-------|--------|-------|
| 1 (a) | 2 (d) | 3 (a) |
| 4 (d) | 5 (c) | 6 (c) |
| 7 (c) | 8 (d) | |
| 9 (b) | 10 (a) | |

Second

- | | | |
|---------------|---------------|----------|
| 1 1,025 | 2 20, 15 | 3 15, 40 |
| 4 400, 20. | 5 400, 4,000. | |
| 6 2,000, 200. | 7 50, 5,000. | 8 9 : 13 |
| 9 00 : 23 | 10 4, 10 | |

Third

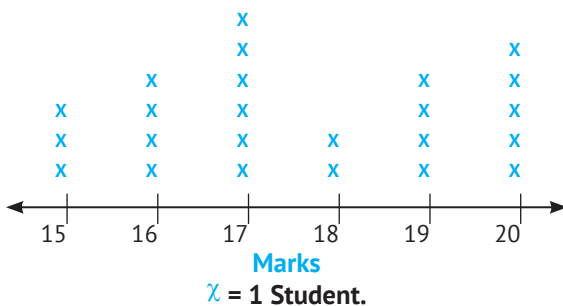
- | | | |
|-----|-----|-----|
| 1 < | 2 > | 3 < |
| 4 = | | |

Fourth

400 cm, 400 dm, 40 dekameters, 40 hectometers.

Fifth

Marks of Mathematics



Sixth

$120 + 30 = 150$ minutes.

$150 + 150 + 150 = 450$ minutes.

General Exercises on Unit 4

First

- | | | |
|-------|--------|-------|
| 1 (a) | 2 (b) | 3 (c) |
| 4 (a) | 5 (d) | 6 (c) |
| 7 (a) | 8 (a) | |
| 9 (a) | 10 (c) | |

Second

- | | | |
|---------|---------|------|
| 1 50 m. | 2 24 m. | 3 49 |
| 4 32 | 5 14 | 6 34 |
| 7 9 | 8 6 | 9 16 |
| 10 32 | | |

Third

- a $A = 24 \text{ cm}^2$, $P = 20 \text{ cm}$.

b $A = 16 \text{ cm}^2$, $P = 16 \text{ cm}$.

c $A = 81 \text{ cm}^2$, $P = 40 \text{ cm}$.
- $P = 3 \times w + w + 3 \times w + w$
 $= 8 \times w$
- $P = (40 + 15) \times 2$
 $= 110 \text{ cm}$.

Unit 5

Lesson 1

Understanding Multiplicative Comparison

- 1 **a** 5 times. **b** triple.
c 5 times. **d** triple.
e 7 times.
- 2 **a** $6 \times 4 = 24$ **b** $5 \times 3 = 15$
c $7 + 7 + 7 = 21$ **d** $6 + 6 + 6 + 6 + 6 = 30$
- 3 **a** 16,4 **b** 14,7,7
c 8,4,2 **d** 27,9,3
- 4 **a**

7	7	7	7
---	---	---	---

b

4	4	4	4	4	4	4	4
---	---	---	---	---	---	---	---

c

8	8	8
---	---	---

d

10	10	10
----	----	----

Lesson 2

Creating Multiplicative Comparison Equations

- 1 **a** $\chi = 4 \times 7$ **b** $y = 4 \times 3$
c $m = 2 \times 7$ **d** $18 = 6 \chi$
e $24 = 4 y$ **f** $48 = 8 \chi$
g $21 = 3 a$ **h** $36 = 9 \times m$.
- 2 **a** $\chi = 5 \times 4$ **b** $12 = 3 \chi$
c $21 = 7 y$ **d** $\chi = 2 \times 4$
e $18 = 6 m$

Lesson 3

Solving Multiplicative Comparison Equations

- 1 **a** $X = 4 \times 8$, $\chi = 32$
b $y = 5 \times 6$, $y = 30$
c $m = 2 \times 9$, $m = 18$
d $18 = 6 a$, $a = 3$
e $36 = 4 b$, $b = 9$
f $42 = 7 n$, $n = 6$

- 2 **a** $15 = 3a$, $a = 5$
b $b = 5 \times 3$, $b = 15$
c $20 = 5a$, $a = 4$
d $24 = 3y$, $y = 8$

Lesson 4

Commutative Property of Multiplication

- 1 **a** 7 **b** 6
c 6 **d** 9
- 2 **a** 8 **b** 10
c 6 **d** 8
- 3 $5 \times 6 = 6 \times 5$
- 4 $5 \times 8 = 8 \times 5$

Lesson 5

Patterns of Multiplying by 10s

- 1 **a** 0 **b** 0
c 1 **d** 9
e 7 **f** 1
- 2 **a** 80 **b** 900
c 6,000 **d** 120
e 2,000 **f** 30,000
- 3 **a** 10 **b** 1,000
c 100 **d** 100
e 10 **f** 10

Lesson 6

Exploring Patterns in Multiplication

- 1 **a** 1,200 **b** 1,500
c 40,000 **d** 10,000
e 100,000 **f** 400,000
- 2 **a** 50 **b** 60
c 500 **d** 20
e 5000 **f** 100
- 3 $1,000 \times 2 = 2,000 \text{ mm}$.

Lesson 7

Exploring More Patters in Multiplication

- 1 **a** $(5 \times 3) \times 2 = 15 \times 3 = 30$
b $(3 \times 4) \times 2 = 12 \times 2 = 24$
c $2 \times (5 \times 4) = 2 \times 20 = 40$
d $10 \times (6 \times 5) = 10 \times 30 = 300$
- 2 **a** 3,5 **b** 3,4
c 7,9 **d** 7,2
- 3 $6 \times 2 \times 3 = 6 \times (2 \times 3)$
 $= 6 \times 6 = 36$ eggs.
- 4 $4 \times 2 \times 5 = 4 \times (2 \times 5)$
 $= 4 \times 10 = 40$ bottles.

Lesson 8

Applying Patterns in Multiplication

- 1 **a** 10 **b** 100
c 8 **d** 5
e 60
- 2 **a** 240 **b** 240
c 4,000 **d** 6,300
e 40,000 **f** 42,000

Unit 6

Lesson 1

Identifying Factors of Whole Numbers

- 1 **a** 1, 2, 3, 4, 6, 12 **b** 1, 2, 4, 5, 8, 10, 20, 40
c 1, 2, 3, 4, 6, 9, 12, 18, 36
- 2 **a** 1, 5, 25 **b** 1, 2, 3, 4, 6, 8, 12, 16, 24, 48
c 1, 19
- 3 **a** 10, 20, 30
b **1** 5 **2** 2, 5, 10
3 2 **4** 5 **5** 2

Lesson 2

Prime and Composite Numbers

- 1 **a** 3,5 **b** 2,3,6,9
c 2,5 **d** 2,3,6,9
e 2,5 **f** 3,9
- 2 2, 3, 5, 7, 11, 13, 15, 17, 19, 23, 29, 31, 37, 41, 43,
47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97
- 3 **a** 1, 2, 7, 14 (Not a prime number)
b 1, 2, 23, 46 (Not a prime number)
c 1, 2, 11, 22 (Not a prime number)
d 1, 59 (prime number)
e 1, 2, 5, 10, 25, 50 (Not a prime number)
f 1, 29 (prime number)
- 4 **a** 28 **b** 48
c 35

Lesson 3

Greatest Common Factor (G.C.F)

- 1 **a** 4 **b** 10
c 7 **d** 1
- 2 Largest number of groups = (G.C.F) = 9
Number of boys in each group
 $= 27 \div 9 = 3$ boys.
Number of girls in each group
 $= 36 \div 9 = 4$ girls.
- 3 Number of snacks
(G.C.F) = 12
Number of apples in each
package = $24 \div 12 = 2$ apples.
Number of candy in each
package = $36 \div 12 = 3$ candies.

Lesson 4

Identifying Multiples of Whole Numbers

- 1 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40.
- 2 0, 5, 10, 15, 20, 25, 30, 35, 40.
- 3 **a** 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100.
b 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.
- 4 **a** 0, 16, 32, 40, 56, 64, 72, 80.
b 0, 6, 12, 18, 24, 30, 36, 42, 48, 54, 60.
c 0, 7, 14, 21, 28.
d 27, 54, 99, 36, 45.

Lesson 5

Common Multiples

- 1 0, 6, 12, 18 2 0, 12, 24
- 3 **a** 8, 16 **b** 10, 20
c 24, 48 **d** 42, 84
- 4 **a** 40, 50, 60, 70 **b** 48, 60, 72, 84
c 72, 96, 120

Lesson 6

Relationships Between Factors and Multiples

- **a** 35, 5, 7, 5, 7, 35 **b** $48 = 6 \times 8, 8 \times 8, 48$
c 24 **d** 27
e 2, 3 are factors of 6 or 6 is a multiple of 2, 3.

Unit 7

Lesson 1

The Area Model Strategy

- 1 **a** 64 **b** 84
c 170
- 2 **a** 120 **b** 522
c 268 **d** 686
- 3 702 4 138

Lesson 2

The Distributive Property

- 1 **a** 1,248 **b** 2,244
c 47,106 **d** 10,748
- 2 **a** 3,000 **b** 1,944
c 19,425 **d** 39,696
- 3 980 cm.

Lesson 3

The Partial Products Algorithm

- 1 **a** 2,048 **b** 23,916
c 567 **d** 5,616
e 500 **f** 76,185

Lesson 4

The Standard Multiplication Algorithm

- 1 **a** 1,200 , 1,422 , 1,422
b 63,000 , 66,825 , 66,825
- 2 **a** 336 **b** 1,944
c 29,232 **d** 216
e 1,192 **f** 39,330

Lesson 5

Connecting Strategies

- 1 **a** 1,548 **b** 270
c 4,298 **d** 21,375
e 25,040
- 2 **a** 3,192 **b** 372
c 1,640 **d** 372

Lesson 6

Two-Digit Multiplication

- 1 **a** 960 **b** 2,960
- 2 **a** 2,800 **b** 5,740
- 3 **a** 7,650 **b** 810
- 4 **a** 450 **b** 700
c 840 **d** 2,400

Lesson 7

Area Models and 2-Digit Multiplication

- 1 **a** 2,205 **b** 3,827
 c 1,932 **d** 1,813
- 2 $215 \times 6 = 1,290$
- 3 $35 \times 38 = 1,330$

Lesson 8

Algorithms and 2-Digit Multiplication

- **a** 1,000 , 1,484 , 1,484
 b 2,400 , 3,216 , 3,216
 c 2,700 , 3,040 , 3,040

Lesson 9

Putting It All Together

- 1 $210 \times 2 = 420$ kg.
 $420 - 130 = 290$ kg.
- 2 $6 + 8 = 14$ km.
 $14 \times 6 = 84$ km.
- 3 $76 \times 3 = 228$ seats.
 $228 - 53 = 175$ seats.
 $76 + 228 + 175 = 479$ seats.
- 4 $65 \times 3 + 55 \times 2 = 305$ km.
 $500 - 305 = 195$ km.
- 5 $270 - 70 = 200$ km.
 $200 + 270 + 20 = 670$ km.

Lesson 10

Exploring Remainders

- 1 **a** 25 , 4 , 6 , 1 **b** 30 , 6 , 5 , 0
 c 28 , 5 , 5 , 3 **d** 16 , 3 , 5 , 1
 e 15 , 2 , 7 , 1
- 2 $60 \div 40 = 1$ R 20
 Number of buses = 2.
 Number of empty seats
 $= 40 - 20 = 20$.
- 2 $48 \div 5 = 9$ R 3
 Number of boxes = 10 boxes.

Lesson 11

Patterns and Place Value in Division

- 1 **a** $45 \div 9 = 5$, 500 **b** $15 \div 5 = 3$, 3,000
 c $8 \div 4 = 2$, 200 **d** $8 \div 4 = 2$, 2,000
- 2 **a** 300 **b** 500
 c 2,000 **d** 500
- 3 $9 \times 90 = 810$.
 All workers can't ride the same metro.
- 4 $360 \div 6 = 60$ patties.
- 5 $540 \div 9 = 60$ boxes.

Lesson 12

The Area Model and Division

- 1 **a** 14 **b** 22 R2.
 c 152 R1. **b** 400
- 2 $868 \div 8 = 108$ R4.
- 3 $492 \div 4 = 123$ cars.

Lesson 13

The Partial Quotients Algorithm

- 1 **a** 16 R3 **b** 28
 c 125 **d** 234 R1
 e 2,312 **f** 2,092 R2
- 2 $480 \div 3 = 160$ cups.
- 3 $1,026 \times 5 = 5,130$ cans.
 $5,130 \div 2 = 2,565$ cans.

Lesson 14

The Standard Division Algorithm

- 1 **a** 60 , 90 - 20 , 30
 b 600 , 900 - 200 , 300
 c 200 , 240 - 50 , 60
 d 4,000 , 6,000 - 2,000 , 3,000
 e 4,000 , 8,000 - 1,000 , 2,000
- 1 **a** 13 **b** 24 R1
 c 152 **d** 139 R3
 e 2,819 **f** 3,269
- 2 $784 \div 8 = 98$ passengers.

Lesson 15

Division and Multiplication

- 1 **a** 3 – 100 – 200 – 169
b 2 – 60 – 70 – 66
c 3 – 600 – 700 – 608
d 3 – 600 – 700 – 603
- 2 **a** $192 \div 3 = 64$ – 100 – 200
b $93 \div 2 = 46.5$ – 90 – 100
- 3 $219 \div 3 = 73$ km.

Lesson 16

Solving Challenging Story Problems

- 1 $14 \times 6 = 84$ kg.
 $84 + 14 = 98$ kg.
 $98 \div 7 = 14$ bags.
 Number of bags = 14 bags.
- 2 $347 \times 4 = 1,388$ balls
 $1,388 - 799 = 589$ balls.
- 3 $21 \div 3 = 7$ bottles.
- 4 $814 \times 3 = 2,442$ pages.
 $2,442 + 814 = 3,256$ pages.